=> d ibib abs hitstr 1-26 THE ESTIMATED COST FOR THIS REQUEST IS 146.64 U.S. DOLLARS DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:v

L4 ANSWER 1 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:145564 CAPLUS

DOCUMENT NUMBER: 150:202899

TITLE: Monolayer electrophotographic photoreceptor, its

manufacture, image-forming apparatus and process

cartridge

INVENTOR(S): Tamoto, Nozomu; Tanaka, Chiaki; Shimada, Tomoyuki;

Kimura, Michio; Yanagawa, Yoshiteru; Tone, Tetsuya;

Tada, Hiromi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 75pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2009025382	A	20090205	JP 2007-185840	20070717
PRIORITY APPLN. INFO.:			TP 2007-185840	20070717

AB The monolayer photoreceptor is manufactured by the steps of (1) forming a cured resin layer by reacting (A) a compound without charge-transporting structure and (B) a compound with charge-transporting structure, and (2) contacting the cured resin layer with a supercrit. or subcrit. fluid containing a charge-generating agent and ≥1 of hole or electron-transporting agent. Tandem-type electrophotog. apparatus using the photoreceptor is claimed. The photoreceptor shows good mech. and elec. static durability and gives clear images in repeated copying.

IT 866142-07-6 1108145-64-7

RL: TEM (Technical or engineered material use); USES (Uses)
(electron-transporting agent; monolayer electrophotog. photoreceptor
manufactured by contacting cured resin with charge-transporting group with
super critical fluid containing charge-generating agent and hole or
electron-transporting agent)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 1108145-64-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-phenylhexyl)- (CA INDEX NAME)

L4 ANSWER 2 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1533330 CAPLUS

DOCUMENT NUMBER: 150:67128

TITLE: Manufacture of electrophotographic photoconductors,

electrophotographic apparatus, and process cartridges

for same apparatus

INVENTOR(S): Tada, Hiromi; Tanaka, Chiaki; Shimada, Tomoyuki;

Kimura, Michio; Tamoto, Nozomu; Tone, Tetsuya;

Yanakawa, Yoshiteru

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 66pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE		APE	PLICATION NO.			DATE		
								_			_
	JP 2008310307	A	2008	1225	JP	2008-121864			2008	0508	8
PRIO	RITY APPLN. INFO.:				JΡ	2007-131368		Α	2007	051	7
AB	Electrophotog. phot	oconduc	tors	consist	of,	successively	on	ele	ec.		
	1 1 1	1		-	- 1	and the second s	-			1	

conductive supports, undercoat layers and photosensitive layers, wherein the undercoat layers are formed by a process including steps of (1) forming layers mainly containing binder resins on the supports, and (2) bringing the binder resin-based layers in contact with supercrit. fluids and/or subcrit. fluids containing electron-transporting substances. The photoconductors suppress residual potential elevation and sensitivity drop, and durably provide high quality images without backgroud soiling.

IT 866142-07-6

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(electron-transport agents; manufacture of electrophotog. photoconductors with undercoat layers containing electron-transport agents)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-

octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

ANSWER 3 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1533313 CAPLUS

DOCUMENT NUMBER: 150:67126

Manufacture of electrophotographic photoconductors, TITLE:

electrophotographic apparatus, and process cartridges

for same apparatus

DATE

INVENTOR(S): Tamoto, Nozomu; Tanaka, Chiaki; Shimada, Tomoyuki;

Kimura, Michio; Tone, Tetsuya; Yanakawa, Yoshiteru;

APPLICATION NO.

DATE

Tada, Hiromi

Ricoh Co., Ltd., Japan PATENT ASSIGNEE(S):

SOURCE: Jpn. Kokai Tokkyo Koho, 62pp.

KIND

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.

	JP 2008310291	А	20081225	JP 2008-68411	20080317	
F	RIORITY APPLN. INFO.:			JP 2007-131348	A 20070517	
P	AB Electrophotog. ph	otocondu	ctors consis	t of, on elec. cond	luctive supports,	
	single-layer phot	osensiti	ve layers wh	ich contain charge-	generating	
	substances (A), h					
	electron-transpor	ting subs	stances (C)	and are manufacture	d by a process	
				mainly containing		sins
				s, and (2) bringing		
				percrit. fluids and		
	fluids containing	, A, B, ar	nd/or C. Th	e photosensitive la	yers show high	
	electrostatic and	l mech. dı	ırability, a	nd durably provide	high-quality	
	images.					
Т	т 866142-07-6					

866142-07-6

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electron-transporting substances, supercrit./subcrit. fluids containing; manufacture of electrophotog. photoconductors by using supercrit. and/or subcrit. fluids)

RN 866142-07-6 CAPLUS

[2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-CN

octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

L4 ANSWER 4 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1397426 CAPLUS

DOCUMENT NUMBER: 149:567062

TITLE: Electrophotographic process cartridge and apparatus

using photoreceptor containing naphthalene carboxydiimide charge-transporting agent

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008281805 PRIORITY APPLN. INFO.:	A	20081120	JP 2007-126306 JP 2007-126306	20070511 20070511
GI				

Ι

ΙI

AB The photoreceptor comprises a conductive support having a photosensitive layer containing a charge-generating agent, a charge-transporting agent I [R1-2=H, (substituted) alkyl, cycloalkyl, aralkyl; R3-14=H, halo, cyano, nitro, OH, etc; n=0-100], and II [R15=H, halo, (substituted) alkyl, aryl, etc.; R16-17=H, (substituted) alkyl, aryl]. The apparatus has the photoreceptor, and means for charging, imagewise exposing, developing and toner image transferring,. The process cartridge using the photoreceptor is also claimed. The apparatus gives clear image without defect in repeated use.

IT 866142-07-6 929037-02-5 929037-03-6 929037-04-7 929037-05-8

RL: TEM (Technical or engineered material use); USES (Uses) (charge-transporting agent; electrophotog. photoreceptor containing naphthalene carboxylic acid imide charge-transporting agent and phenyltriazole compound)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

929037-05-8 CAPLUS RN

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

ANSWER 5 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1158802 CAPLUS

DOCUMENT NUMBER: 149:412913

TITLE: Electrophotographic image-forming apparatus including

process cartridge

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Eiji

PATENT ASSIGNEE(S):

Ricoh Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 23pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008224785 PRIORITY APPLN. INFO.:	A	20080925	JP 2007-59373 JP 2007-59373	20070309 20070309
TRIORITI MILLIN. INIO			01 2007 33373	20070303

GΙ

The title apparatus is equipped with: a photoreceptor which has a AΒ photosensitive layer on an electroconductive support; a charging means for the photoreceptor; an exposure means for the photoreceptor; a reverse-mode toner image development means; and a toner image transfer means, wherein the photosensitive layer of the photoreceptor contains titanyl phthalocyanine and charge transporting agent I(R1-2 = H, alkyl, cycloalkyl, aralkyl; R3-14 = H, halo, cyano, nitro, etc.; n = integer 0-100). The apparatus provides a photoreceptor, which is sensitive and which does not generate ghost image after repeatedly used. ΙT

866142-07-6

RL: TEM (Technical or engineered material use); USES (Uses) (charge-transporting agent for electrophotog. photoreceptor; photosensitive layer of electrophotog. photoreceptors)

RN 866142-07-6 CAPLUS

[2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-CN octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

ANSWER 6 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1110894 CAPLUS

DOCUMENT NUMBER: 149:435876

TITLE: Method and device for forming image using electron

hole transporting material

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke

PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 82pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
CN 101261457	7 A	20080910	CN 2008-10082689		20080306	
JP 200821671	.3 A	20080918	JP 2007-55088		20070306	
US 200803054	126 A1	20081211	US 2008-36779		20080225	
PRIORITY APPLN. 1	NFO.:		JP 2007-55088	А	20070306	

AB The title device comprises a photoconductor with at least a substrate and a photosensitive monolayer, an electrostatic-latent-image-forming unit, a developing unit, and a transfer unit. The photosensitive layer at least comprises charge-generating material, electron-transporting material, hole-transporting material, and resin as binder, and the charge-generating material contains crystalline titanyl phthalocyanine and X-type non-metal phthalocyanine.

IT 866142-07-6 929037-02-5 929037-03-6 929037-04-7 929037-05-8 929076-74-4 934236-98-3

RL: TEM (Technical or engineered material use); USES (Uses) (method and device for forming image using electron hole transporting material)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 929076-74-4 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

L4 ANSWER 7 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:640709 CAPLUS

DOCUMENT NUMBER: 148:572448

TITLE: Electrophotographic apparatus employing monolayer

electrophotographic photoconductors containing electron transporting naphthalenetertracarboximides

Ι

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 2008122763	A	20080529	JP 2006-307684	20061114	
PRIORITY APPLN. INFO.:			JP 2006-307684	20061114	
OTHER SOURCE(S):	MARPAT	148:572448			
GI					

 $\ensuremath{\mathsf{AB}}$ $\ensuremath{\mathsf{The}}$ apparatus employs monolayer electrophotog, photoconductors containing charge

generating substances, hole transporting substances, and naphthalenetertracarboximides I (R1, R2 = H, alkyl, cycloalkyl, aralkyl; R3-R14 = H, halo, cyano, nitro, amino, OH, alkyl, cycloalkyl, aralkyl; n = 0-100) as electron transporting substances. The apparatus involves a charging unit, an exposure unit, a development unit, a image-transfer unit applying transfer bias of polarity opposite to that of the charging unit on the developed images, a preliminary charge-removal unit applying bias of opposite polarity to that of the transfer bias, a unit removing residual charge from the photoconductors, and a controller for the preliminary charge-removal unit. Preferably, the charge generating substances contain phthalocyanines, more preferably titanylphthalocyanines having prescribed diffraction peaks. The apparatus produce high-quality images without ghost after repeated image formation.

IT 866142-07-6 929037-02-5 929037-03-6 929037-04-7 929037-05-8 929076-74-4 934236-98-3

RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. apparatus employing monolayer electrophotog. photoconductors containing electron transporting naphthalenetertracarboximides)

RN 866142-07-6 CAPLUS CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 929076-74-4 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

L4 ANSWER 8 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:587543 CAPLUS

DOCUMENT NUMBER: 148:572408

TITLE: Electrophotographic photoreceptor, image forming

apparatus and process cartridge

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Elji; Kawamura, Shiniohi

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 25pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

AΒ

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20080113286 JP 2008122740 PRIORITY APPLN. INFO.: OTHER SOURCE(S): GI	A1 A MARPAT	20080515 20080529 148:572408	US 2007-929083 JP 2006-307475 JP 2006-307475	- А	20071030 20061114 20061114

Ι

electroconductive substrate; and a photosensitive layer located overlying the electroconductive substrate, wherein the photosensitive layer is a single-layered layer comprising a charge generation material and an electron transport material having formula I, wherein R1 and R2 independently represent a hydrogen atom, and a group selected from the group consisting of substituted or unsubstituted alkyl groups, substituted or unsubstituted cycloalkyl groups and substituted or unsubstituted aralkyl groups; R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13 and R14 independently represent a hydrogen atom, a halogen atom, and a group selected from the group consisting of cyano groups, nitro groups, amino groups, a hydroxy groups, substituted or unsubstituted alkyl groups, substituted or unsubstituted cycloalkyl groups and substituted or unsubstituted aralkyl groups; and n is a repeat unit and represents 0 and an integer of from 1 to 100 and wherein the charge generation materials is a titanylphthalocyanine having a specific CuKα 1.542 Å X-ray diffraction spectrum. The objective of the invention is to provide a single- layered electrophotog. photoreceptor having high sensitivity, being stably charged and not producing abnormal images such as residual images even after repeatedly used.

IT 866142-07-6 929037-02-5 934236-98-3 949534-66-1 1025411-77-1 1025411-79-3 1025411-82-8 1025411-84-0

RL: TEM (Technical or engineered material use); USES (Uses) (charge-transporting material in electrophotog. photoreceptor) 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6'

[2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

934236-98-3 CAPLUS RN

[2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]-1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,7,7''-bis(1-ethylpropyl)- (CA INDEX NAME) CN

RN 949534-66-1 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)octone, 7,7'-bis(1-methylheptyl)- (CA INDEX NAME)

RN 1025411-77-1 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-propylbutyl)- (CA INDEX NAME)

RN 1025411-79-3 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylpropyl)-7'-(1-propylbutyl)- (CA INDEX NAME)

RN 1025411-82-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-[3-[(2-ethylhexyl)oxy]propyl]-7'-(1-methylhexyl)- (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

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RN 1025411-84-0 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 4,4',5,5',9,9',10,10'-octamethyl-7,7'-bis(1-methylethyl)- (CA INDEX NAME)

L4 ANSWER 9 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:349337 CAPLUS

DOCUMENT NUMBER: 148:366521

TITLE: Electrophotographic apparatuses forming defect-free

images for long term

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 2008065115	A	20080321	JP 2006-243852	20060908	
PRIORITY APPLN. INFO.:			JP 2006-243852	20060908	
GI					

Ι

AB The title apps. have photoreceptor drums containing conductive substrates forming (i) photosensitive layers wherein charge-generating agents and charge-transporting agents I [R1, R2 = H, (cyclo)alkyl, aralkyl; R3-R14 = H, halo, cyano, nitro, amino, OH, (cyclo)alkyl, aralkyl; n = 0-100] are included and (ii) polyethylene wax-applied outermost layers.

IT 866142-07-6 929037-02-5 929037-03-6 929037-05-8 929076-74-4 934236-98-3

949534-66-1

RL: TEM (Technical or engineered material use); USES (Uses) (charge-transporting agents; electrophotog. apps. containing prescribed charge-transporting agents and polyethylene wax-applied outermost layers and showing good durability on repetitive uses)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 929076-74-4 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

949534-66-1 CAPLUS RN

[2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-CN octone, 7,7'-bis(1-methylheptyl)- (CA INDEX NAME)

ANSWER 10 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:322135 CAPLUS

DOCUMENT NUMBER: 148:366493

TITLE: Electrophotographic photoconductor, method for

producing the same, image forming process, image

forming apparatus and process cartridge

INVENTOR(S):

Toshine, Tetsuya; Tanaka, Chiaki; Kimura, Michio; Shimada, Tomoyuki; Tamoto, Nozomu; Yanagawa, Yoshiki;

Tada, Hiromi

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 71pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE		
US 20080063962	A1	20080313	US 2007-850394		20070905		
JP 2008139829	A	20080619	JP 2007-204763		20070806		
PRIORITY APPLN. INFO.:			JP 2006-243289	A	20060907		
			JP 2006-299370	A	20061102		
			JP 2007-204763	Α	20070806		

AB The present invention provides an electrophotog. photoconductor capable of reducing latent electrostatic image stability defects caused by adhesion/adsorption of an elec. discharge product formed by a charger in an image forming process, degradation of charge transportability and cleaning defects caused when removing a residual toner. The electrophotog. photoconductor has a conductive substrate, and a photosensitive layer which contains at least a binder, a charge generating material and a charge transporting material and is formed on the substrate, wherein the photosensitive layer contains an injection material composed of at least any one of one wax selected from paraffin waxes, Fischer-Tropsch waxes, polyolefin waxes and a polyorganosiloxane compound in an area from the surface of the photosensitive layer to 50% of the thickness thereof in the thickness direction of the electrophotog. photoconductor, and the content of the injection material is 3% by mass or more to the content of the binder.

IT 866142-07-6

RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. photoconductor, method for producing the same, image forming process, image forming apparatus and process cartridge)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

L4 ANSWER 11 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1309439 CAPLUS

DOCUMENT NUMBER: 147:551154

TITLE: Image forming apparatus

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kawamura, Shinich

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 21pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND DATE		APPLICATION NO.	DATE	
US 20070264047 JP 2007304365	A1 A	20071115 20071122	JP 2006-133250	20070511 20060512	
PRIORITY APPLN. INFO.: OTHER SOURCE(S): GI	MARPAT	147:551154	JP 2006-133250 A	20060512	

I

An image forming apparatus having an image bearing member having a substrate AB and a photosensitive layer having a charge generating layer and a charge transport layer, a charging device for uniformly charging the surface of the image bearing member, an irradiating device having a light source for irradiating the image bearing member to form a latent electrostatic image thereon, a developing device for developing the latent electrostatic image, a transfer device for transferring the developed image to a recording medium and a cleaning device for cleaning the surface of the image bearing member:. Wherein the charge transport layer contains a charge transport material represented by the following chemical formulas (I) light source emits light having a wavelength not less than 600 nm and the image bearing member is not irradiated with light having a wavelength less than 600 nm, wherein R1 and R2 independently denote a hydrogen atom, a substituted or non-substituted alkyl group, a substituted or non-substituted cycloalkyl group, a substituted or non-substituted aralkyl group, R3, R4, R5, R6, R7, R8, R9 and R10 independently denote a hydrogen atom, a halogen atom, cyano group, nitro group, amino group, hydroxyl group, a substituted or non-substituted alkyl group, a substituted or non-substituted cycloalkyl group, a substituted or non-subst.

IT 866142-07-6P 929037-02-5P 929037-03-6P

929037-04-7P 929037-05-8P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(image forming apparatus)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

L4 ANSWER 12 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1203229 CAPLUS

DOCUMENT NUMBER: 147:477498

TITLE: Electrophotographic photoconductor, image forming

apparatus, and process cartridge

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Eiji; Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan

SOURCE: Eur. Pat. Appl., 49pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

EP	1847	882			A1		2007	1024		EP .	2007-	1065	88		2	0070	420
	R:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE	, ES,	FΙ,	FR,	GB,	GR,	HU,	ΙE,
		IS,	ΙT,	LI,	LT,	LU,	LV,	MC,	MT,	NL	, PL,	PT,	RO,	SE,	SI,	SK,	TR,
		AL,	ΒA,	HR,	MK,	YU											
JP	2007	2865	36		A		2007	1101		JP .	2006-	1164	57		2	0060	420
JP	2008	0520	14		Α		2008	0306		JP .	2006-	2275	76		2	0060	824
US	2007	02489	901		A1		2007	1025		US .	2007-	7369	19		2	0070	418
CN	1010	5966	3		А		2007	1024		CN .	2007-	1010	0837		2	0070	420
PRIORIT	Y APP	LN.	INFO	.:						JP .	2006-	1164	57	Ž	A 2	0060	420
										JP .	2006-	2275	76	Ž	A 2	0060	824

OTHER SOURCE(S): MARPAT 147:477498

An electrophotog. photoconductor contains a photosensitive layer and a conductive substrate, wherein the photosensitive layer is disposed on the conductive substrate, and the photosensitive layer is a single layer containing a charge generating material, an electron transporting material expressed by the General Formula (1) and a hole transporting material expressed by the General Formula (2): wherein R1 and R2 independently represent any one of a hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group and substituted or unsubstituted aralkyl group, and R3, R4, R5, R6, R7, R8, R9 and R10 independently represent any one of a hydrogen atom, halogen atom, cyano group, nitro group, amino group, hydroxyl group, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group and substituted or unsubstituted aralkyl group; and wherein R11, R12, R13, R14, R17, R18, R19 and R20 each represents a hydrogen atom, halogen atom, alkoxy group, alkyl group which may be substituted or aryl group which may be substituted, R15 and R16 each represents a hydrogen atom, halogen atom, alkyl group, and alkoxy group.

IT 866142-07-6

RL: TEM (Technical or engineered material use); USES (Uses) (Electrophotog. photoconductor, image forming apparatus, and process cartridge)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1027801 CAPLUS

DOCUMENT NUMBER: 147:374473

TITLE: Electrophotographic photoreceptor in process cartridge

of electrophotographic image-forming apparatus

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Eiji

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007233116	A	20070913	JP 2006-55784	20060302
PRIORITY APPLN. INFO.:			JP 2006-55784	20060302

OTHER SOURCE(S): MARPAT 147:374473

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AB The title photoreceptor has a photosensitive monolayer containing a charge-generating material and a charge-transporting material on an electroconductive support, wherein the charge-generating material is titanyl phthalocyanine of 27.2° maximum diffraction peak and 26.3° peak of 1-99% peak intensity based on the maximum peak by CuK α x-ray(1.542 Å wavelength) diffraction anal. with Bragg's angle $20\pm0.2^\circ$ and wherein the charge-transporting material has general structure I(R1-2 = H, alkyl, cycloalkyl, etc.; R3-10 = H, halo, cyano, nitro, etc.). The photoreceptor shows high sensitivity and provides high quality images for long time.

IT 866142-07-6P 929037-02-5P 929037-04-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge-transporting compound; electrophotog. photoreceptor in process cartridge of electrophotog. image-forming apparatus)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

L4 ANSWER 14 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:998753 CAPLUS

DOCUMENT NUMBER: 147:353185

TITLE: Electrophotographic photoconductor and its manufacture INVENTOR(S): Yanaqawa, Yoshiki; Kawasaki, Yoshiaki; Suzuki, Tetsuro

PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan SOURCE: PCT Int. Appl., 154 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.				KIND DATE			APPLICATION NO.				DATE						
	WO 2007100132			A1 20070907			WO 2007-JP54146				20070227							
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ	, CA,	CH,
			CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	, GB,	GD,
			GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KM,	, KN,	KP,
			KR,	KΖ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	LY,	MA,	MD,	MG	, MK,	MN,
			MW,	MX,	MY,	MZ,	NA,	NG,	NΙ,	NO,	NΖ,	OM,	PG,	PH,	PL,	PT.	, RO,	RS,
			RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	ΤJ,	TM,	TN,	TR	, TT,	TZ,
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		2008												-			20080	
		2009															20080	
		2008												-			20080	
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AB Title electrophotog. photoconductor comprises a support and a crosslinked layer formed over the support, wherein the crosslinked layer comprises at least light curable radically polymerizable compound, the difference of maximum value of the post-exposure elec. potential and min. value of the post-exposure elec. potential when writing is conducted under the condition that image static power is 0.53 mW, exposure energy is 4.0 erg/cm2 for the electrophotog. photoconductor is within 30 V.

IT 934236-98-3

RL: MOA (Modifier or additive use); USES (Uses) (electrophotog. photoconductor and its manufacture)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:971009 CAPLUS

DOCUMENT NUMBER: 147:311232

TITLE: Electrophotographic apparatuses having photoreceptor

layers with less film shrinkage or layer peeling

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 41pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
JP 2007219126 PRIORITY APPLN. INFO.:	A	20070830	JP 2006-39216 JP 2006-39216	20060216 20060216	
OTHER SOURCE(S): GI	MARPAT	147:311232			

AB The apps. have photoreceptor drums forming photosensitive layers containing charge-generating substances (e.g., titanyl phthalocyanine),

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IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 946827-79-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge-transporting substance; electrophotog. apps. having photoreceptor layers with less shrinkage or layer peeling)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 946827-79-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylheptyl)- (CA INDEX NAME)

L4 ANSWER 16 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:460356 CAPLUS

DOCUMENT NUMBER: 146:431291

TITLE: Electrophotographic apparatus and process cartridge

with photoreceptor containing naphthalene carboxylic

acid imide charge-transporting agent

INVENTOR(S): Toda, Naohiro; Kurimoto, Eiji; Shimoyama, Keisuke;

Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 38pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007108652 PRIORITY APPLN. INFO.:	A	20070426	JP 2006-131614 JP 2005-270998 A	20060510 20050916
OTHER SOURCE(S):	MARPAT	146:431291		

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AB The apparatus comprises corona-charging devices, imagewise exposing device, a developing and image-transporting devices, and a photoreceptor with a photosensitive layer containing a charge-generating agent and a charge-transporting agent I (R1-2 = H, alkyl, cycloalkyl; R3-10 = H, halo, CN, nitro, amino, OH, alkyl, cycloalkyl, aralkyl). Alternatively, the photoreceptor contains a charge-transporting agent II (R1-2 = H, alkyl,

cycloalkyl; R3-14 = H, halo, CN, nitro, amino, OH, alkyl, cycloalkyl, aralkyl; n = 1-100). Detachable process cartridge using the photoreceptor is also claimed. As the deterioration by acidic gas is prevented, the photoreceptor gives clear images for a long period of time.

IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 929037-05-8P 934236-98-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(electrophotog. photoreceptor containing naphthalene carboxylic acid imide charge-transporting agent)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

L4 ANSWER 17 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:460354 CAPLUS

DOCUMENT NUMBER: 146:451541

TITLE: Electrophotographic apparatus with toner recovering

means and process cartridge

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2007108644	A	20070426	JP 2006-109428	20060412		
PRIORITY APPLN. INFO.:			JP 2005-267782 A	20050915		
OTHER SOURCE(S).	MARPAT	146 • 451541				

OTHER SOURCE(S): MARPAT 146:451541

GΙ

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The apparatus comprises a contact-charging device, imagewise exposing device, a developing and image-transporting devices, a photoreceptor with a photosensitive layer containing a charge-transporting agent I (R1-2 = H, alkyl, cycloalkyl; R3-10 = H, halo, CN, nitro, amino, OH, alkyl, cycloalkyl, aralkyl), and reverse-charged toner recovering means with the bias having the same polarity as the toner at downstream side of the transporting means, in which the recovered toner is returned to the

photoreceptor at time other than image formation. Alternatively, the photoreceptor contains the charge-transporting agent II (R1-2 = H, alkyl, cycloalkyl; R3-14 = H, halo, CN, nitro, amino, OH, alkyl, cycloalkyl, aralkyl; n = 1-100). The process cartridge comprises the photoreceptor and the toner recovering means. The image forming apparatus comprises the process cartridge and changeable toner bottle. The compact and cost-effective electrophotog. apparatus shows good durability and gives clear images with high accuracy.

IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 929037-05-8P 934236-98-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge-transporting agent; electrophotog. photoreceptor containing naphthalene carboxylic acid imide charge-transporting agent)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 934236-98-3 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]-1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

IT 929076-74-4

RL: TEM (Technical or engineered material use); USES (Uses) (charge-transporting agent; electrophotog. photoreceptor containing naphthalene carboxylic acid imide charge-transporting agent)

RN 929076-74-4 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

L4 ANSWER 18 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:460351 CAPLUS

DOCUMENT NUMBER: 146:451539

TITLE: Compact-type electrophotographic apparatus using

photoreceptor containing naphthalene carboxylic acid

imide charge-transporting agent

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Eiji; Kawamura, Shinichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 31pp.

CODEN: JKXXAF

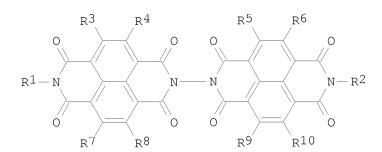
DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

AΒ

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2007108632 PRIORITY APPLN. INFO.:	A	20070426	JP 2006-30625 JP 2005-266175 A	20060208 20050914		
OTHER SOURCE(S): GI	MARPAT	146:451539				



developing and image-transporting devices, and a photoreceptor with a photosensitive layer containing a charge-generating agent and a charge-transporting agent I (R1-2 = H, alkyl, cycloalkyl; R3-10 = H, halo, CN, nitro, amino, OH, alkyl, cycloalkyl, aralkyl). A process cartridge using the photoreceptor is also claimed. The compact-type electrophotog. apparatus gives clear images for a long range of time.

IT 866142-07-6P 929037-02-5P 929037-04-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(electrophotog. apparatus using photoreceptor containing naphthalene carboxylic

acid imide charge-transporting agent)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

ANSWER 19 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

2007:408758 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 146:431249

TITLE: Electrophotographic image-forming apparatus

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kawamura, Shinichi

PATENT ASSIGNEE(S):

Ricoh Co., Ltd., Japan Jpn. Kokai Tokkyo Koho, 37pp. SOURCE:

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
				_	
JP 2007094360	A	20070412	JP 2006-72038		20060316
PRIORITY APPLN. INFO.:			JP 2005-254616	Α	20050902
OTHER SOURCE(S).	МАВРАТ	146 • 431249			

GΙ

Ι

AΒ The title apparatus is equipped with: a photoreceptor having a photosensitive layer and a protective layer on an electroconductive support; a photoreceptor-charging device; a photoreceptor-exposure device to form a latent image; a toner image-development device; and a toner image transfer device, wherein charge-transporting compound I(R1-2 = H, alkyl, cycloalkyl, aralkyl; R3-10 =H, halo, cyano, nitro, etc.) is added in the

photosensitive layer and a protective layer of the photoreceptor. The apparatus shows little increase of residual voltage on a photoreceptor after long service.

IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 929037-05-8P 929076-74-4P 934236-98-3P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge-transporting compound in photosensitive layer and protective layer of photoreceptor)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

RN 929076-74-4 CAPLUS CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]-1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone, 7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

RN 934236-98-3 CAPLUS CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]-1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone, 7,7''-bis(1-ethylpropyl)- (CA INDEX NAME)

L4 ANSWER 20 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:287116 CAPLUS

DOCUMENT NUMBER: 146:347362

INVENTOR(S):

TITLE: Electrophotographic photoconductor, image forming

apparatus, image forming method, and process cartridge Shimoyama, Keisuke; Kurimoto, Eiji; Orito, Takeshi; Niimi, Tatsuya; Kawamura, Shinichi; Yanagawa, Yoshiki;

Sasaki, Michitaka

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 121 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE			
US 20070059619 JP 2007079307 JP 2007079498 JP 2007079505 JP 2007108637 JP 2007108651	A1 A A A A A	20070315 20070329 20070329 20070329 20070426 20070426	US 2006-518944 JP 2005-269166 JP 2005-270999 JP 2005-271015 JP 2006-40315 JP 2006-129486		20060912 20050915 20050916 20050916 20060217 20060508			
JP 2007108665 JP 2007108670 JP 2008033207 JP 2007108719 CN 101013276 PRIORITY APPLN. INFO.:	A A A A	20070426 20070426 20080214 20070426 20070808	JP 2006-167116 JP 2006-177174 JP 2006-240753 JP 2006-244842 CN 2006-10064471 JP 2005-264724 JP 2005-267862	A A	20060616 20060627 20060905 20060908 20060913 20050913 20050915			
			JP 2005-269160 JP 2005-269161 JP 2005-269162 JP 2005-270999 JP 2005-271007 JP 2005-271015 JP 2006-177176	A A A A A TO	20050915 20050915 20050915 20050916 20050916 20050916 20050916 20060627			

OTHER SOURCE(S): MARPAT 146:347362

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AB The invention relates to an electrophotog. photoconductor that has a layer containing a charge transport compound represented by I (R1, R2 = H, alkyl, cycloalkyl, aralkyl; R3-10 = H, halo, cyano, nitro, amino, hydroxyl, alkyl, cycloalkyl, aralkyl), and an image forming apparatus using the electrophotog. photoconductor.

IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 929037-05-8P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(charge transport compound preparation; electrophotog. photoconductor with specific charge transport compound, image forming apparatus, image forming method, and process cartridge)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

L4 ANSWER 21 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:287077 CAPLUS

DOCUMENT NUMBER: 146:347360

TITLE: Electrophotographic photoconductor, and image forming

apparatus, process cartridge

INVENTOR(S): Kurimoto, Eiji; Shimoyama, Keisuke; Kimura, Michio;

Kawamura, Shinichi; Takada, Takeshi; Yamashita,

Yasuyuki; Toda, Naohiro; Nakamori, Hideo

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 112pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE			
US 20070059618	 A1	20070315	US 2006-521493		20060915			
JP 2007108645	A	20070426	JP 2006-112356		20060414			
JP 2007108650	A	20070426	JP 2006-129485		20060508			
JP 2007108658	A	20070426	JP 2006-142964		20060523			
JP 2007108659	A	20070426	JP 2006-143190		20060523			
JP 2007108671	A	20070426	JP 2006-177175		20060627			
JP 2007108682	A	20070426	JP 2006-200602		20060724			
JP 2007264589	A	20071011	JP 2006-249827		20060914			
CN 101004561	A	20070725	CN 2006-10064333		20060915			
PRIORITY APPLN. INFO.:			JP 2005-267882	A	20050915			
			JP 2005-268478	A	20050915			
			JP 2005-269156	A	20050915			
			JP 2005-269163	A	20050915			
			JP 2005-269165	A	20050915			
			JP 2005-270493	A	20050916			
			JP 2005-271008	A	20050916			
			JP 2006-56505	А	20060302			

OTHER SOURCE(S): MARPAT 146:347360

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containing an electrophotog. photoconductor, a charging unit, an exposing unit, a developing unit, a transfer unit and a cleaning unit, wherein the electrophotog. photoconductor contains a support and at least a photosensitive layer disposed on the support, wherein the photosensitive layer contains a charge generating material and a compound expressed by I (R1,2 = H, alkyl, cycloalkyl, aralkyl group; R3-14 = H, halogen atom, cyano group, nitro group, amino group, hydroxyl group, alkyl group which may be substituted, cycloalkyl group which may be substituted and aralkyl group which may be substituted; n = a number of replication and represents an integer of 0 to 100).

IT 929076-76-6

RL: TEM (Technical or engineered material use); USES (Uses) (charge transporting material for electrophotog. photoconductor)

RN 929076-76-6 CAPLUS

CN Poly(4,5,9,10-tetrafluoro-1,3,6,8-tetrahydro-1,3,6,8-tetraoxobenzo[lmn][3,8]phenanthroline-2,7-diyl), α, ω -bis[7-(1-ethylpropyl)-3,6,7,8-tetrahydro-1,3,6,8-tetraoxobenzo[lmn][3,8]phenanthrolin-2(1H)-yl]- (CA INDEX NAME)

IT 866142-07-6P 929037-02-5P 929037-03-6P 929037-04-7P 929037-05-8P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of charge transporting material for electrophotog. photoconductor)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-03-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylethyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-05-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylhexyl)-7'-(1-pentylhexyl)- (CA INDEX NAME)

IT 929076-74-4

RL: TEM (Technical or engineered material use); USES (Uses) (preparation of charge transporting material for electrophotog. photoconductor)

RN 929076-74-4 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-ethylpropyl)-4',5',9',10'-tetrafluoro- (CA INDEX NAME)

L4 ANSWER 22 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:286729 CAPLUS

DOCUMENT NUMBER: 146:347356

TITLE: Electrophotographic image forming apparatus and

process cartridge

INVENTOR(S): Shimoyama, Keisuke; Kurimoto, Eiji; Sasaki, Michitaka;

Kawamura, Shin-Ichi

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 26pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
US 20070059039	A1	20070315	US 2006-519099		20060912	
JP 2007108633	A	20070426	JP 2006-35965		20060214	
JP 2007108636	A	20070426	JP 2006-38542		20060215	
JP 2007108643	A	20070426	JP 2006-86148		20060327	
JP 2007108646	A	20070426	JP 2006-114052		20060418	
JP 2007108647	A	20070426	JP 2006-114054		20060418	
JP 2007108649	A	20070426	JP 2006-117068		20060420	
JP 2007108667	A	20070426	JP 2006-170879		20060621	
CN 1932663	A	20070321	CN 2006-10151862		20060913	
PRIORITY APPLN. INFO.:			JP 2005-264722	Α	20050913	
			JP 2005-266245	Α	20050914	
			JP 2005-267953	Α	20050915	
			JP 2005-267955	А	20050915	
			JP 2005-269167	А	20050915	
			JP 2005-271006	А	20050916	
			JP 2005-271016	А	20050916	

OTHER SOURCE(S): MARPAT 146:347356

AB An electrophotog. image forming apparatus, including a photoreceptor, a charger charging the surface of the photoreceptor, an irradiator irradiating the surface of the photoreceptor with imagewise light to form an electrostatic latent image thereon, an image developer developing the electrostatic latent image with a developer including a toner to form a toner image on

the surface of the photoreceptor, and a transferer transferring the toner image onto a transfer material, wherein the photoreceptor includes an electroconductive substrate, and a photosensitive layer overlying the electroconductive substrate and including a charge generation material and a specific charge transport material.

IT 866142-07-6P 929037-02-5P 929037-04-7P 929202-09-5P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(electrophotog. image forming apparatus and process cartridge)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 929037-02-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylethyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929037-04-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 929202-09-5 CAPLUS

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]-1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,7,7''-bis(1-methylbutyl)- (CA INDEX NAME)

L4 ANSWER 23 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:76436 CAPLUS

DOCUMENT NUMBER: 147:531344

TITLE: Development of new electron transport material with

high drift mobility

AUTHOR(S): Fujiyama, Takahiro; Sugimoto, Ken-ichi; Sekiguchi,

Michiru

CORPORATE SOURCE: Material Science Laboratory, Mitsui Chemicals, Inc.,

580-32 Nagaura, Sodegaura, Chiba, 299-0265, Japan

SOURCE: Nippon Gazo Gakkaishi (2006), 45(6), 521-525

CODEN: NGGAFI; ISSN: 1344-4425

PUBLISHER: Nippon Gazo Gakkai

DOCUMENT TYPE: Journal LANGUAGE: English

AB We have developed new electron transport materials, which have the structure of naphthalene-tetracarboxylic diimide. These compds. showed good compatibility to a polycarbonate and good solubility in common organic solvents. Electron transport properties of these compds. were investigated by the conventional time-of-flight method. Electron drift mobilities have been measured as a function of the concentration and elec. field.

The values of electron mobility ranged from 10-8 to 10-4 cm2/Vs as the mol. concentration was varied from 20 to 60 wt%. These mobilities are comparable

to hole mobility of triphenylamine derivative, TPD.

IT 866142-05-4P 866142-06-5P 956592-52-2P

956592-53-3P 956592-54-4P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(development of new electron transport material with high drift mobility)

RN 866142-05-4 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-ethylpropyl)- (CA INDEX NAME)

RN 866142-06-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylpropyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylhexyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 956592-53-3 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylheptyl)-7'-(1-methylheptyl)- (CA INDEX NAME)

RN 956592-54-4 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylheptyl)-7'-(2-ethylhexyl)- (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1025348 CAPLUS

DOCUMENT NUMBER: 147:375145

TITLE: New electron transport materials with high drift

mobility comparable to hole-transporting materials

AUTHOR(S): Fujiyama, Takahiro; Sugimoto, Ken-ichi; Sekiguchi,

Michiru

CORPORATE SOURCE: Material Science Laboratory, Mitsui Chemicals, Inc.,

Chiba, Japan

SOURCE: NIP21, Final Program and Proceedings [of the]

International Conference on Digital Printing Technologies, 21st, Baltimore, MD, United States, Sept. 18-23, 2005 (2005), 6-8. Society for Imaging

Science and Technology: Springfield, Va.

CODEN: 691LZX; ISBN: 0-89208-257-7

DOCUMENT TYPE: Conference LANGUAGE: English

AB New electron transport materials having the following general structure were developed. We synthesized them and examined their properties. These compds. showed good compatibility to a polycarbonate and good solubility in common organic solvents. Electron transport properties of these compds. were investigated. Electron drift mobilities were measured as a function of the concentration and elec. field by the conventional time-of-flight technique. They showed nondispersive electron transport in composition films. The values of electron mobility ranged from 10-8 to 10-4 cm2/Vs as the mol. concentration was varied from 20 to 60%.

IT 866142-04-3 866142-05-4 866142-06-5

866142-07-6 949534-66-1

RL: TEM (Technical or engineered material use); USES (Uses) (new electron transport materials with high drift mobility comparable to hole-transporting materials and good dispersibility and solubility in organic solvents)

RN 866142-04-3 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(2-ethylhexyl)-7'-(1-methylheptyl)- (CA INDEX NAME)

RN 866142-05-4 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-ethylpropyl)- (CA INDEX NAME)

RN 866142-06-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylpropyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 949534-66-1 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylheptyl)- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:99880 CAPLUS

DOCUMENT NUMBER: 144:180728

TITLE: Tetracarboxylic diimide derivatives and their

electrophotographic photoconductors with high

sensitivity

INVENTOR(S): Sugimoto, Kenichi; Fujiyama, Takahiro

PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 37 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE		
JP 2006028027 PRIORITY APPLN. INFO.:	A	20060202	JP 2004-204929 JP 2004-204929	20040712 20040712		
OTHER SOURCE(S): GI	MARPAT	144:180728				

AB The derivs. are I [X, Y = H, aryl, (cyclo)alkyl, aralkyl; Z1-Z3 = tetravalent organic group]. Electrophotog. apparatus equipped with the photoconductors are also claimed. The derivs., useful as electron transporting agents, show good dispersibility in binder resins.

IT 874762-49-9 874762-50-2

874762-49-9 874762-50-2
RL: DEV (Device component use); USES (Uses)
 (tetracarboxylic diimide derivs. as electron transporting agents showing good dispersibility in binder resins for electrophotog. photoconductors with high sensitivity)

RN 874762-49-9 CAPLUS
CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)octone, 7-(1-methylbutyl)-7'-[3,5,6,7-tetrahydro-6-(1-methylbutyl)-1,3,5,7tetraoxobenzo[1,2-c:4,5-c']dipyrrol-2(1H)-yl]- (CA INDEX NAME)

PAGE 1-B

CN [2,2'(1H,7'H):7',2''(1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis(1-methylhexyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$\begin{array}{c} \text{Me} \\ | \\ \text{CH- (CH}_2)_4 - \text{Me} \end{array}$$

L4 ANSWER 26 OF 26 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:1075805 CAPLUS

DOCUMENT NUMBER: 143:376388

TITLE: Novel compounds and organic electronic devices INVENTOR(S): Fujiyama, Takahiro; Sugimoto, Kenichi; Sekiguchi,

Michiru

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

SOURCE: PCT Int. Appl., 106 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.			KIN	IND DATE			APPLICATION NO.					DATE						
				_														
WO 2005092901			A1	A1 20051006			,	WO 2005-JP5979					20050329					
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		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,	
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KΖ,	LC,	
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI,	
		NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	
		SY,	ТJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UΖ,	VC,	VN,	YU,	ZA,	ZM,	ZW
	RW	: BW,	GH,	GM,	KE,	LS,	MW.	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM.	ZW,	AM,	

GT

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AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     EP 1736476
                                20061227
                                            EP 2005-727671
                          Α1
                                                                    20050329
         R: DE, FR, GB, NL
     CN 1938321
                                20070328
                                            CN 2005-80010086
                                                                    20050329
                          Α
     US 20070219375
                                20070920
                                            US 2006-594156
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                          Α1
     KR 2006134167
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                          Α
     KR 861434
                                20081002
                          В1
PRIORITY APPLN. INFO.:
                                            JP 2004-94088
                                                                 A 20040329
                                            JP 2004-277461
                                                                 A 20040924
                                            JP 2004-351088
                                                                A 20041203
                                            WO 2005-JP5979
                                                                W 20050329
                         MARPAT 143:376388
OTHER SOURCE(S):
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<u>x</u>2

AB Disclosed are compds. having a structure wherein constitutional units represented by the general formula I (X1-4 = 0, S, NR; R = H, monovalent organic moiety; Z = tetravalent organic moiety, and * represents a bonding position) are bonded to one another without the intermediary of a linking group. Also disclosed are organic electrophotog. photoreceptors, organic thin film transistors, organic electroluminescent display devies, and organic solar cells.

IT 866142-04-3P 866142-05-4P 866142-06-5P 866142-07-6P 866142-08-7P 866142-09-8P 866142-10-1P 866142-12-3P 866142-13-4P

Ι

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(synthesis and use as electron transporting agents for electrooptical devices)

RN 866142-04-3 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(2-ethylhexyl)-7'-(1-methylheptyl)- (CA INDEX NAME)

RN 866142-05-4 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-ethylpropyl)- (CA INDEX NAME)

RN 866142-06-5 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-ethylpropyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 866142-07-6 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-bis(1-methylhexyl)- (CA INDEX NAME)

RN 866142-08-7 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1,2-dimethylpropyl)-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 866142-09-8 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-dodecyl-7'-(1-methylhexyl)- (CA INDEX NAME)

RN 866142-10-1 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7,7'-didodecyl- (CA INDEX NAME)

RN 866142-12-3 CAPLUS

CN [2,2':7',2''(1H,1''H)-Terbenzo[lmn][3,8]phenanthroline]1,1',1'',3,3',3'',6,6',6'',8,8',8''(7H,7''H)-dodecone,
7,7''-bis[2,5-bis(1,1-dimethylethyl)phenyl]- (9CI) (CA INDEX NAME)

RN 866142-13-4 CAPLUS

CN [2,2'(1H,1'H)-Bibenzo[lmn][3,8]phenanthroline]-1,1',3,3',6,6',8,8'(7H,7'H)-octone, 7-(1-methylheptyl)-7'-(1-methyloctyl)- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 12:30:35 ON 09 JUN 2009)

28

FILE 'REGISTRY' ENTERED AT 12:31:10 ON 09 JUN 2009

L1 STRUCTURE UPLOADED

L2 0 S L1 L3 29 S L1 FULL

FILE 'CAPLUS' ENTERED AT 12:31:49 ON 09 JUN 2009

10/594,156

L4 26 S L3

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L1 HAS NO ANSWERS
L1 STR

Structure attributes must be viewed using STN Express query preparation.

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